

ABSTRACT OF THE DISCLOSURE

In the non-node, the apparatus neither obtains a self-
physical_ID nor transmits a self_ID packet. Therefore, the
apparatus is not recognized as a node in a self-
5 identification phase. However, the apparatus, but
transmits an ident_done signal received from a child node
directly to a parent node. Moreover, when the apparatus
becomes a route node in a tree identification phase in the
non-node mode, after normal configuration, a PHY
10 configuration packet output section outputs a PHY
configuration packet for resetting an apparatus of another
node as a route node. In a normal mode, the apparatus obtains
a self physical_ID and transmits a self_ID packet.
Therefore, the apparatus is recognized as a node in the
15 self-identification phase.